



U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

Monthly Wholesale Trade

Sales and Inventories

April 1999

BW/99-4

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MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES

APRIL 1999

Intention to Revise Wholesale Estimates: Monthly wholesale data will be revised based on the results of the 1997 Annual Trade Survey, which reflects the preliminary 1997 Census of Wholesale Trade data. Unadjusted sales, inventories, and inventories/sales ratios will be revised for January 1993 through May 1999, while corresponding adjusted data will be revised for January 1990 through May 1999. Revised data are scheduled for release the week of August 2.

Sales. April 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$221.9 billion, virtually unchanged (+/- 0.7%) from the revised March level and were 4.0 percent (+/- 1.8%) above the April 1998 level. The March preliminary estimate was revised downward \$0.4 billion or 0.2 percent. Among durable goods, sales of metals and minerals, except petroleum were up 1.9 percent from last month. Among nondurable goods, sales of petroleum and petroleum products increased 7.5 percent from last month, while apparel, piece goods, and notions decreased 8.4 percent.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$289.0 billion at the end of April, up 0.2 percent (+/- 0.3%) from the revised March level and were 4.7 percent (+/- 0.9%) above April 1998. The March preliminary estimate was revised downward \$0.2 billion or 0.1 percent. Among

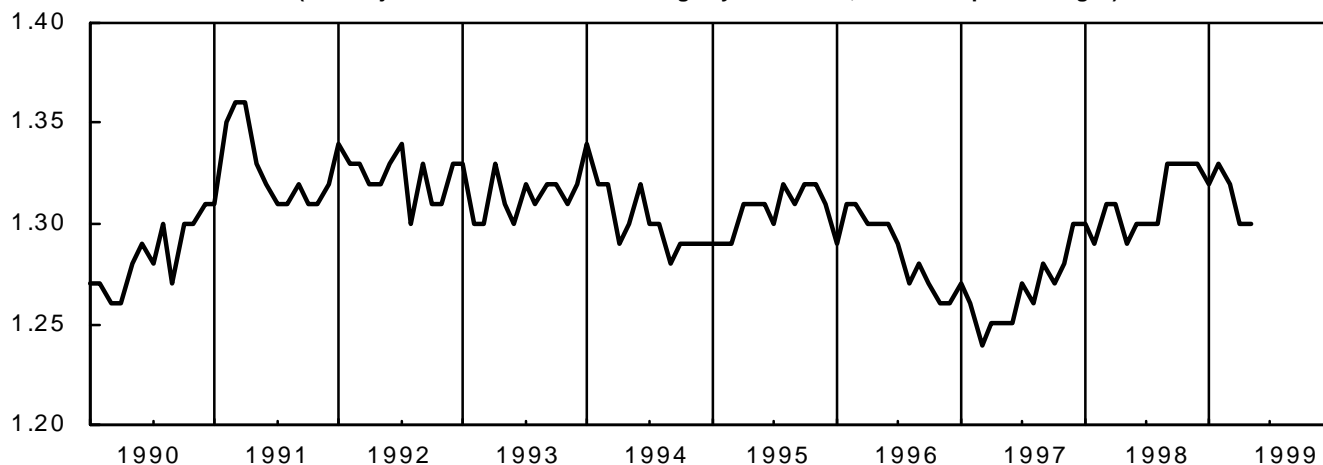
durable goods, inventories of lumber and other construction materials increased 1.5 percent from March, while professional and commercial equipment and supplies fell 2.8 percent. End-of-month inventories of nondurable goods increased 1.1 percent (+/- 0.5%) from March and were 7.4 percent (+/- 1.5%) above last year. Compared to last month, inventories of drugs, drug proprietaries, and druggists' sundries increased 5.3 percent and paper and paper products grew 2.1 percent.

Inventories/Sales Ratio. The April inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.30. The April 1998 ratio was 1.29.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/97-RV Current Business Reports.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999

(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for April is scheduled to be released July 8, 1999 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, Bureau of the Census, Washington, DC 20233, or call Ronald Pienzykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svsd/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		Apr. 1999 (p)	Mar. 1999 (r)	Apr. 1998 (r)	Apr./ Mar.	Mar./ Feb.	Apr. 99 Apr. 98	Apr. 1999 (p)	Mar. 1999 (r)	Apr. 1998 (r)	Apr./ Mar.	Mar./ Feb.	Apr. 99 Apr. 98	Apr. 1999 (p)	Mar. 1999 (r)	Apr. 1998 (r)
Adjusted²																
	U.S. Total	221,865	221,796	213,268	0.0	1.5	4.0	288,961	288,432	276,068	0.2	0.2	4.7	1.30	1.30	1.29
50	Durable	118,164	118,178	113,883	0.0	0.8	3.8	188,275	188,877	182,308	-0.3	0.1	3.3	1.59	1.60	1.60
501	Automotive	20,832	20,192	18,787	3.2	-4.2	10.9	29,845	29,792	28,987	0.2	2.0	3.0	1.43	1.48	1.54
502	Furniture	3,449	3,468	3,425	-0.5	-0.2	0.7	5,554	5,614	5,555	-1.1	-0.7	0.0	1.61	1.62	1.62
503	Lumber	8,413	8,357	7,494	0.7	2.7	12.3	7,904	7,786	7,844	1.5	2.4	0.8	0.94	0.93	1.05
504	Prof. equip.	21,577	22,217	21,502	-2.9	4.0	0.3	23,597	24,265	27,094	-2.8	-2.6	-12.9	1.09	1.09	1.26
505	Metals	8,478	8,324	8,784	1.9	-2.2	-3.5	13,968	13,766	14,108	1.5	-3.9	-1.0	1.65	1.65	1.61
506	Electrical	18,454	18,270	17,195	1.0	1.6	7.3	27,292	27,682	26,536	-1.4	-1.1	2.8	1.48	1.52	1.54
507	Hardware	7,072	7,151	6,597	-1.1	2.6	7.2	13,471	13,545	13,250	-0.5	0.3	1.7	1.90	1.89	2.01
508	Machinery	18,496	18,635	18,689	-0.7	2.9	-1.0	49,436	48,944	43,048	1.0	1.2	14.8	2.67	2.63	2.30
509	Other Durable	11,393	11,564	11,410	-1.5	-0.7	-0.1	17,208	17,483	15,886	-1.6	2.4	8.3	1.51	1.51	1.39
51	Nondurable	103,701	103,618	99,385	0.1	2.5	4.3	100,686	99,555	93,760	1.1	0.5	7.4	0.97	0.96	0.94
511	Paper	7,934	7,796	7,461	1.8	-2.6	6.3	9,487	9,291	9,135	2.1	0.1	3.9	1.20	1.19	1.22
512	Drugs	12,792	12,487	10,661	2.4	1.8	20.0	17,130	16,273	14,650	5.3	2.0	16.9	1.34	1.30	1.37
513	Apparel	7,186	7,842	6,939	-8.4	12.7	3.6	11,478	11,743	12,101	-2.3	-3.5	-5.1	1.60	1.50	1.74
514	Groceries	29,470	29,210	28,356	0.9	1.7	3.9	17,142	16,814	16,299	2.0	1.9	5.2	0.58	0.58	0.57
515	Farm-products	8,018	8,485	8,924	-5.5	-0.5	-10.2	12,533	12,261	9,903	2.2	3.4	26.6	1.56	1.45	1.11
516	Chemicals	4,268	4,390	4,558	-2.8	4.0	-6.4	5,064	5,078	4,977	-0.3	-1.9	1.7	1.19	1.16	1.09
517	Petroleum	13,577	12,633	12,214	7.5	11.9	11.2	4,197	4,213	4,563	-0.4	0.9	-8.0	0.31	0.33	0.37
518	Alcohol	5,134	5,063	4,772	1.4	-0.8	7.6	5,924	5,905	5,167	0.3	2.0	14.7	1.15	1.17	1.08
519	Other Nondur.	15,322	15,712	15,500	-2.5	-2.0	-1.1	17,731	17,977	16,965	-1.4	-1.3	4.5	1.16	1.14	1.09
Not Adjusted														Sales to date		
														1999		1998
	U.S. Total	224,970	238,077	216,001	-5.5	19.2	4.2	291,146	290,708	278,205	0.2	-0.3	4.7	858,102		828,990
50	Durable	119,157	127,809	114,331	-6.8	20.3	4.2	189,987	189,230	183,970	0.4	0.1	3.3	454,228		437,525
501	Automotive	21,811	22,716	19,614	-4.0	17.0	11.2	30,263	30,269	29,422	0.0	-0.6	2.9	81,009		73,201
502	Furniture	3,490	3,634	3,435	-4.0	17.2	1.6	5,404	5,513	5,405	-2.0	-0.1	0.0	13,164		13,184
503	Lumber	8,606	8,507	7,644	1.2	24.2	12.6	8,157	7,965	8,087	2.4	4.9	0.9	30,458		27,489
504	Prof. equip.	21,124	24,217	20,964	-12.8	25.0	0.8	23,833	24,314	27,338	-2.0	-1.5	-12.8	83,772		82,069
505	Metals	8,732	9,190	9,100	-5.0	14.0	-4.0	14,080	13,931	14,235	1.1	-3.2	-1.1	34,123		35,809
506	Electrical	17,845	19,567	16,576	-8.8	19.7	7.7	27,237	27,267	26,483	-0.1	-2.2	2.8	69,230		65,237
507	Hardware	6,994	7,072	6,452	-1.1	17.0	8.4	13,740	13,694	13,502	0.3	1.2	1.8	26,139		24,592
508	Machinery	19,606	20,741	19,661	-5.5	24.5	-0.3	50,375	49,336	43,866	2.1	2.3	14.8	73,195		73,668
509	Other Durable	10,949	12,165	10,885	-10.0	16.9	0.6	16,898	16,941	15,632	-0.3	0.8	8.1	43,138		42,276
51	Nondurable	105,813	110,268	101,670	-4.0	18.1	4.1	101,159	101,478	94,235	-0.3	-1.0	7.3	403,874		391,465
511	Paper	7,910	8,311	7,401	-4.8	9.7	6.9	9,582	9,337	9,245	2.6	0.9	3.6	31,669		29,458
512	Drugs	12,958	13,374	10,768	-3.1	17.1	20.3	17,216	16,419	14,723	4.9	1.3	16.9	49,697		43,053
513	Apparel	6,978	8,861	6,759	-21.3	23.2	3.2	11,030	11,285	11,629	-2.3	-8.0	-5.2	29,434		28,967
514	Groceries	29,116	30,787	28,356	-5.4	17.8	2.7	16,971	16,562	16,136	2.5	2.4	5.2	112,746		109,158
515	Farm-products	7,641	9,054	8,540	-15.6	11.2	-10.5	12,596	13,413	9,953	-6.1	-5.8	26.6	33,369		37,763
516	Chemicals	4,345	4,667	4,686	-6.9	18.4	-7.3	5,054	5,103	4,972	-1.0	-2.1	1.6	17,138		18,411
517	Petroleum	13,916	13,037	12,348	6.7	23.1	12.7	4,151	4,087	4,522	1.6	-0.5	-8.2	49,086		47,936
518	Alcohol	5,129	5,114	4,786	0.3	23.5	7.2	5,906	5,911	5,157	-0.1	6.8	14.5	18,152		16,741
519	Other Nondur.	17,820	17,063	18,026	4.4	19.7	-1.1	18,653	19,361	17,898	-3.7	-0.8	4.2	62,583		59,978

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to year estimates		Cumulative sales estimates		Current year cumulative to previous year
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	Current year	Previous year	
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.1	1.3	1.1	1.3	0.4	0.2	0.8	1.0	1.2	1.1	0.8
50	Durable	1.9	2.3	1.9	2.3	0.6	0.3	1.1	1.2	1.8	2.3	1.1
501	Automotive	4.3	4.8	4.2	4.9	1.1	0.9	1.9	2.2	4.3	5.0	2.4
502	Furniture	6.5	7.7	6.4	7.7	2.2	0.8	3.1	2.6	6.3	6.7	1.5
503	Lumber	5.3	5.4	5.2	5.4	1.2	0.7	1.8	2.3	5.6	5.7	1.3
504	Prof. equip.	5.6	7.0	5.3	6.7	1.3	0.7	3.3	2.4	6.5	5.4	3.2
505	Metals	4.9	9.9	4.8	9.7	1.1	0.8	1.6	3.0	5.1	4.6	1.2
506	Electrical	5.8	6.6	5.9	6.6	1.4	0.6	2.1	2.4	5.8	6.1	2.2
507	Hardware	5.6	6.1	5.6	6.0	1.2	0.6	1.6	2.1	5.8	5.3	1.5
508	Machinery	6.4	6.5	6.3	6.4	1.8	0.6	2.7	2.1	6.3	6.9	2.2
509	Other Durable	6.5	8.5	6.3	8.1	1.6	0.9	2.5	2.3	6.5	5.8	2.2
51	Nondurable	1.9	2.2	1.9	2.2	0.6	0.4	1.0	1.3	1.9	1.8	0.9
511	Paper	4.9	5.1	4.9	5.1	1.1	0.6	2.1	2.2	4.9	5.1	1.1
512	Drugs	6.3	4.8	6.3	4.9	0.9	0.8	2.3	1.6	6.4	7.1	1.4
513	Apparel	5.1	7.6	5.0	7.6	2.1	1.1	2.9	2.5	4.6	4.8	2.0
514	Groceries	3.0	5.1	3.0	5.1	0.7	0.6	1.3	1.2	2.9	2.8	1.0
515	Farm-products	6.6	8.3	6.5	8.2	2.2	1.7	2.8	3.9	6.2	5.5	2.2
516	Chemicals	5.5	6.2	5.6	6.2	1.3	0.6	2.0	2.0	5.0	5.8	1.5
517	Petroleum	6.4	14.7	6.2	15.4	0.9	0.9	1.8	1.7	7.2	6.9	1.2
518	Alcohol	6.4	8.7	6.4	8.8	1.5	1.4	1.3	16.4	6.2	6.3	1.3
519	Other Nondur.	6.3	7.3	6.3	6.9	2.0	1.1	4.2	4.1	6.4	6.5	3.6

Note: The median measures of variability are based on the most recent 12 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of Business	Sales							Inventories					
		1999						1998	1999					1998
		May	Apr.r	Mar.r	Feb.	Jan.	Apr.r		May	Apr.r	Mar.r	Feb.	Jan.	Apr.r
	U.S. Total¹	0.992	1.011	1.077	0.911	0.908	1.013		0.994	1.007	1.009	1.015	1.019	1.007
50	Durable	0.980	1.006	1.082	0.904	0.883	1.005		1.009	1.009	1.003	1.003	0.997	1.009
501	Automotive	1.005	1.047	1.125	0.921	0.865	1.044		1.007	1.014	1.016	1.042	1.019	1.015
502	Furniture	0.976	1.012	1.048	0.892	0.866	1.003		1.003	0.973	0.982	0.976	0.979	0.973
503	Lumber	1.017	1.023	1.018	0.842	0.819	1.020		1.024	1.032	1.023	0.999	0.977	1.031
504	Prof. equip.	0.944	0.979	1.090	0.907	0.908	0.975		0.994	1.010	1.002	0.991	1.007	1.009
505	Metals	0.988	1.030	1.104	0.947	0.950	1.036		1.004	1.008	1.012	1.005	1.011	1.009
506	Electrical	0.949	0.967	1.071	0.909	0.888	0.964		1.004	0.998	0.985	0.996	0.995	0.998
507	Hardware	0.976	0.989	0.989	0.867	0.880	0.978		1.024	1.020	1.011	1.002	0.984	1.019
508	Machinery	1.018	1.060	1.113	0.920	0.894	1.052		1.018	1.019	1.008	0.997	0.987	1.019
509	Other Durable	0.948	0.961	1.052	0.893	0.854	0.954		0.998	0.982	0.969	0.984	0.994	0.984
51	Nondurable	1.005	1.016	1.068	0.922	0.936	1.022		0.966	1.009	1.018	1.034	1.057	1.010
511	Paper	0.929	0.997	1.066	0.946	0.981	0.992		0.981	1.010	1.005	0.997	1.018	1.012
512	Drugs	0.944	1.013	1.071	0.931	0.996	1.010		0.947	1.005	1.009	1.016	1.074	1.005
513	Apparel	0.822	0.971	1.130	1.034	0.914	0.974		0.976	0.961	0.961	1.008	1.044	0.961
514	Groceries	1.025	0.988	1.054	0.910	0.934	1.000		0.992	0.990	0.985	0.980	0.997	0.990
515	Farm-products	0.954	0.953	1.067	0.955	1.034	0.957		0.831	1.005	1.094	1.201	1.279	1.005
516	Chemicals	1.036	1.018	1.063	0.934	0.938	1.028		1.019	0.998	1.005	1.007	0.999	0.999
517	Petroleum	0.992	1.025	1.032	0.938	0.996	1.011		1.003	0.989	0.970	0.984	1.014	0.991
518	Alcohol	1.025	0.999	1.010	0.811	0.737	1.003		0.962	0.997	1.001	0.956	0.931	0.998
519	Other Nondur.	1.162	1.163	1.086	0.889	0.832	1.163		1.009	1.052	1.077	1.072	1.058	1.055



r Revised.

1 Adjusted sales and inventories data shown in Table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.